

Training Environmental Stewards

From Mountain to Ocean: A Water Quality Training Curriculum

From impaired water quality to declining salmon populations and from the loss of farm and forest resource lands to the growing demands for regional water resources, a diversity of water quality and quantity challenges face residents of the Pacific Northwest. Citizens need to understand the impacts of land use on water resources and know what steps they can take to reduce this impact. Trained WSU Extension volunteers associated with a variety of natural resource stewardship programs are working within Northwest communities and ecosystems to address these challenges.

WSU King County Extension is developing curriculum and training resources to provide a coordinated approach to

training volunteers about preserving water quality and quantity across several land-uses, specifically those that

you would experience as you travel from the ridge of the Cascades to the Puget Sound or Pacific Ocean. This project is creating a core curriculum that addresses the basic land-use impacts on water quality and quantity, as well as specific modules that address the unique impacts and best management practices associated with major land-uses. Using the train-the-trainer model, these materials will be used to train volunteers who

will then work with individuals and communities in King County and beyond to address water resource issues.



Class of 2005 Extension Watershed Stewards

Photo B. Gaolach

Program Goals:

- Develop a core water quality and quantity curriculum
- Implement and evaluate this curriculum in volunteer training classes
- Publish and distribute a final curriculum document in both hard copy and electronic format

Curriculum Development

The goal of this curriculum is to provide a coordinated approach to training volunteers about preserving water quality across several land-uses. It is grounded in the challenges and opportunities associated with particular land-uses, rather than a general overview of watersheds, water quality, or water cycles. With that goal in mind,

this curriculum is designed to be

used in either of two ways. It can be used as a complete training system with 7-10 sessions encompassing all the modules. This is primarily designed for the organization or county Extension office that either does not have other existing volunteer training programs that cover the same material or does not have the staff resources or local expertise to draw speakers from and would be teaching a substantial portion of the modules themselves. Alternatively, the modules of the curriculum may be used independently, or inserted into

Water Quality Curriculum Modules

Module I:	Watersheds, the Water Cycle, and You
Module II:	Forestry
Module III:	Rural Land and Livestock
Module IV:	Agricultural Production
Module V:	Households
Module VI:	Recreation
Module VII:	Watershed Law



Salmon make their way upstream to spawn.

Photo T. Zimmerman

Training Environmental Stewards: Integrated Water Quality & Quantity Education

Curriculum Development - continued

existing trainings such as Master Gardener Training or Extension Livestock Advisor Training.

The focus of this curriculum is on an integrated approach to understanding water quality and quantity issues across all land-uses. We recommend that all users of this curriculum teach *Module I: Watersheds, the Water Cycle, and You*. Module I introduces and lays the groundwork for understanding the science behind and the dynamic nature of watersheds, hydrology and the water cycle. It incorporates the natural landscape forms and processes (e.g. streams, riparian areas, lakes, wetlands, etc.) in addition to introducing a) how humans interact with the watershed (forestry, agriculture, household practices, etc.), b) general types of degradation (e.g. physical, chemical, biological), and c) what we can do to reduce watershed degradation.



The Cedar River Watershed provides most of Seattle's drinking water.

Photo T. Zimmerman

Modules II through VI address specific land uses: *forestry, rural land and livestock, agricultural production, households, and recreation*. In each module, the authors address in greater detail the various types of degradation and mitigation/management options that were introduced in Module I. Each module specifically focuses on what people can do to reduce watershed degradation, ranging from best management to household practices. The curriculum concludes with Module VII, a detailed look at regulations and watershed law.

Each curriculum module includes the following components:

- Learning Objectives
- Presentation Slides and Speaker Notes
- Suggestion Activities
- Resource List
- Presentation Outline
- Accompanying Handouts
- Related Assignments
- Optional Enrichment Lesson

As curriculum modules have been drafted, they have been tested in WSU King County Extension stewardship trainings and water quality events. The draft modules are now undergoing external technical review. Publication (notebook binders with both hardcopy of materials and CDs) and distribution is planned for mid 2006.

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